REMARKS

The acknowledgment of the claim of foreign priority under 35 U.S.C. §119 and receipt of the priority document is noted with appreciation.

The specification has been reviewed and amendments made to correct minor typographical and idiomatic English errors. No new matter has been added.

The drawings filed with the application on October 19, 2001, were indicated as being informal; however, before submitting formal drawings, the Examiner is requested to indicate whether he has any objection to the drawings as filed.

Claims 1 to 4, 6 to 8, 11 to 16, 18 to 22, 24 to 26, 29 to 34, and 36 appear in the application. Claims 1, 2, 6, 7, 14, 15, 18, 19, 24, 32, 33, and 36 have been amended, and claims 5, 9, 10, 17, 23, 27, 28, and 35 have been canceled by this amendment. More specifically, independent claim 1 has been amended to include the limitations formerly in claims 5 and 9. Independent claim 7 has been amended to include the limitations formerly in claims 5, 9 and 10. Independent claim 14 has been amended to include the limitations formerly in claims17 and 9. Independent claim 19 has been amended to include the limitations formerly in claims 23 and 9. Independent claim 25 has been amended to include the limitations formerly in claims 27, 28 and 35.

The disclosed and claimed invention relates to an accounting system and a method of settling accounts for charging a specific data transmitter for packet communication, which data transmitter has been designated in advance. In packet communication, a fee for communication is determined in accordance with an amount of packets having been transmitted between a transmitter and a receiver, and it is the receiver which is charged. However, when communication is made for business use, a data transmitter frequently desires that a data receiver is not charged for communication like a free-dial telephone. The present invention provides an accounting system used for a wireless communication system which accounting system selects a data transmitter or a data receiver to be charged for communication, in accordance with a purpose of the communication.

In one aspect of the claimed invention as shown in Figures 1 and 2, there is

provided an accounting system used for a wireless communication system, such as an e-mail system, in which a data transmitter 1 transmits data to a data receiver 3 through a network, including (a) a data server 5 storing therein data transmitted from the data transmitter, and (b) a calculator 4 calculating a fee payable to communication between the data transmitter and the data receiver, wherein when the data receiver receives data stored in the data server, if the data transmitter is a predetermined one, the calculator charges the data transmitter for communication between the data transmitter and the data receiver.

As shown in Figure 2, when the mail receiver 3 receives e-mails stored in the mail server 5 (step S1), the communication provider 2 checks whether the mail transmitter 1 makes an accounting contract with the communication provider 2 (step S2). If the mail transmitter 2 has made an accounting contract with the communication provider 2 (Yes in step S2), the mail server 5 informs the calculator 4 that the mail transmitter 1 has an accounting contract with the communication provider 2, and further informs the calculator 4 of packet counts (step S3). Though the mail receiver 3 is generally charged for communication made between the mail transmitter 1 and the mail receiver 3, the calculator 4 changes a party to be charged for the communication, to the mail transmitter 1 from the mail receiver 3 (step S4). If the mail transmitter 2 has not made an accounting contract with the communication provider 2 (No in step S2), the mail server 5 charges the mail receiver 3 for the communication as usual (step S5).

The embodiment shown in Figures 3 and 4 is similar except that the data transmitted is data stored on a home-page and the home-page presenter is charged if an accounting contract has been made with the communication provider.

As shown in Figure 5, when the mail transmitter 1 would like to use the accounting system, the mail transmitter 1 requests the communication provider 2 to provide a ciphered code thereto (step S20). On receipt of the request from the mail transmitter 1, the mail server 5 transmits a ciphered code to the mail transmitter 1 (step S21). When the mail receiver 3 receives e-mails stored in the mail server 5 (step S22), the communication provider 2 checks whether the ciphered code transmitted to the mail transmitter 1 from the mail server 5 is attached to the e-mails (step S23). If the ciphered code is attached to the e-mails

(Yes in step S23), the mail server 5 removes the ciphered code from the e-mails, and then, transmits the e-mails to the mail receiver 3, and currently, informs the calculator 4 of packet counts (step S24). Though the mail receiver 3 is generally charged for communication made between the mail transmitter 1 and the mail receiver 3, the calculator 4 changes a party to be charged for the communication, to the mail transmitter 1 from the mail receiver 3 (step S25). If the ciphered code is not attached to the e-mails (No in step S23), the mail server 5 charges the mail receiver 3 for the communication as usual (step S26).

Crosskey et al. disclose a system and method of multiparty billing for Web access. As shown in Figure 1, a client computer 1 dials up with a modem (not shown) over either a cable or telephone line 2 to connect to the on-line service provider (OLSP) proxy server 5. Through the OLSP proxy server 5, the users of the client computers can access hypertext objects stored on the content provider servers 4. In order to speed up the retrieval process, the OLSP proxy server 5 may cache some of the hypertext objects on its own local disk 8 using caching algorithms generally known in the art. If a client computer 1 requests objects which have been cached, the OLSP proxy server 5 returns the cached objects to the client computer 1. If not available locally, then the OLSP proxy server 5 forwards the request on behalf of the client computer 1 to the destination content provider server 4 and sends the results back to the client computer 1 once the requested objects are retrieved from the disk drive 8 of the content provider server 4.

The usage-based multiparty billing logic 9 of Crosskey et al. is preferably embodied as computer readable program code stored on disk drive 8 of the proxy server 5. The billing logic 9 can also be stored on the content provider servers 4 to permit verification or negotiation of payments with the OLSP. In order to bill the user (and/or other participating parties) based on actual usage, the hyperlink access pair, time stamp, Uniform Resource Locator (URL), transfer status and transfer message size are used. Because the hyperlink target indicates the location of the content requested, the billing formula can identify the target content provider as being responsible for payment. Also, because the hyperlink source indicates the present URL content, the billing formula can identify the source content provider

as being responsible for payment. Because the time stamp indicates the time that the Web server processes the request, the billing formula can be a function of the connection time, peak time, off-peak time, etc. The billing formula can also be based substantially on an estimate of the actual network bandwidth usage.

From the foregoing, it will be appreciated that Crosskey et al. present a very complex, multiparty billing system; however, Crosskey et al. do not disclose nor suggest an accounting system in which a data transmitter is a person who has made an accounting contract with the accounting system and in which a specific code is applied to the data by the data transmitter as conditions precedent for charging the data transmitter for the communication between the data receiver and the data transmitter, as specifically claimed.

Claims 1–3, 6–9, 11, 12, 14–16, 18–21, 24–27, 29, 30, 32–34, and 36 have been rejected under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 6,035,281 to Crosskey et al. This rejection is believed to be moot in light of the amendments to the claims as enumerated above.

Claims 4, 5, 10, 13, 17, 22, 23, 28, 31, and 35 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the patent to Crosskey et al. This rejection is respectfully traversed for the reason that Crosskey et al. do not fairly teach or suggest the claimed invention.

In making the rejection as to claim 5, limitation of which is now incorporated into claim1, the Examiner makes the following statements:

> "Crossket [sic] et al. does not explicitly disclose that predetermined one is a person who has made an accounting contract in advance with a provider."

The use of the adverb "explicitly" is misleading, implying that there is an implicit disclosure in Crosskey et al. when, in fact, there is no such disclosure. Further, as to the limitation of claim 9 which is now incorporated into claim 1, the Examiner asserts that a teaching of this feature can be found in Crosskey et al. at col. 6, lines 18–34; however, the cited passage is reproduced below and provides no such teaching:

> "According to the present invention, other parties may share the bill with the user. To illustrate, the URL page denoted by V_current_stop, the original content provider may be willing to

> absorb the accessing cost for the user if the page is an advertisement. Similarly, the OLSP may be willing to share part of the cost (in a form of discount to the user) because the content page may have previously been locally cached. To permit this bill sharing, a hyperlink access pair HAP(user_id, session_id, hap_id)=(V_current_stop, V_next_stop) is mapped into a set of payments denoted by Pay(HAP)={pay(user_id), pay(OLSP_id), pay(advertiser_id), pay(contentprovider_n), . . . etc.} which identifies all parties involved in sharing the payment for that particular access pair and computes the apportioned payments. The final total payment to and from each party is computed by adding together the payments for all the access pairs."

Claim 1, as amended, specifically recites that "wherein said data receiver receives data stored in said data server, if said data transmitter is a person who has made an accounting contract in advance with a provider having said data server and said calculator and a specific code is applied to the data by the data transmitter, said calculator charges said data transmitter for communication between said data transmitter and said data receiver." This is not what Crosskey et al. do. On the contrary, they use a hyperlink access pair which is mapped into a set of payments apportioned among the parties.

Independent claims 7, 14, 19, and 32, as amended have similar limitations to claim 1 discussed above. Further, it will be noted that claims 8 and 26 recite that the specific code is a ciphered code. Again, the Examiner points to col. 6, lines 18–34, of Crosskey et al. as teaching this feature, but from the cited passage reproduced above, it is clear that this is not the case. In the present invention, the data transmitter requests the assignment of a ciphered code for the purpose of using the accounting system. This is necessary since the accounting information is highly sensitive. Before the data is transmitted to the data receiver, the code is stripped from the data, again because of the sensitive nature of the code. No such teaching or suggestion of this suggested by Crosskey et al.

The process of requesting, assigning, applying, and removing the specific code is the subject of independent claim 25. More particularly, claim 25 recites the steps of:

(a) making a request to a charger to assign said specific code to said data transmitter, said step (a) being to be carried out by said data transmitter;

(b) assigning said specific code to said data transmitter in response to said request, said step (b) being to be carried out by said charger;

(c) applying said specific code to said data, said step (f) being carried out by said data transmitter;

(d) calculating a fee payable to communication between said data transmitter and said data receiver;

(e) checking whether a specific code is attached to data by said data transmitter;

(f) charging said data transmitter for said communication, if said specific code is attached to said data;

(g) removing said specific code from said data; and

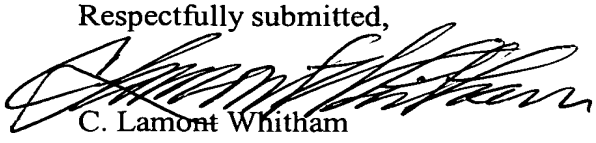
(h) transmitting said data to said data receiver without said specific code. There is simply no hint of this process in Crosskey et al.

In view of the foregoing, it is respectfully requested that the application be reconsidered, that claims 1 to 4, 6 to 8, 11 to 16, 18 to 22, 24 to 26, 29 to 34, and 36 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

A provisional petition is hereby made for any extension of time necessary for the continued pendency during the life of this application. Please charge any fees for such provisional petition and any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,



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